I'll start with confession: I'm not a time diary person, and so I approach this work as something of an outsider. My specialty area is the sociology of education and as such I have a keen interest in understanding how home and school circumstances contribute to children's academic development. Time use very likely is integral, but understudied.

Let me give you two examples.

First, the clock defines how the school day is blocked out, but it doesn't reveal how that time is actually used. Studies of classroom time find vast differences across classrooms in what transpires during a typical 50 minute reading session. In some classes, most time is consumed by procedural tasks and classroom management, things like calling the roll, getting children ready for recess and quieting disruptive students; in other classes, it is mainly engaged learning time. Assuming these differences are systematic and reasonably stable over time, the consequences for children's learning should be obvious.

The second is an example from my own research involving home life outside school. The first Powerpoint chart displays cumulative annual gains in reading comprehension over the five years that span the elementary grades, but separating school year gains from summer gains. These are Baltimore public school children, with the same children tracked over the entire five year period. The chart compares lower
SES children against higher, and the pattern is quite striking. During the school year disadvantaged students effectively keep pace with their better off counterparts, such that there is no increase in the achievement gap during the five years of elementary school. The summer picture is radically different. Then better-off children continue to build their skills, while the skills of low SES children stagnate.

So the achievement gap across social lines widens during the summer months, and one has to ask why? Surely it's not simply the passage of time, but how that time is used, and research on summer learning patterns offers some clues. Probably the most robust finding from this research is that library use – going to the library and taking books home from the library – predicts summer learning gains. So DeSimone and Dills likely are on the right track in examining parental reading time, homework time and overall time with children, and how parents at different levels of schooling compare in these regards.

As you've heard, with the exception of reading time they generally find small differences that vary in complicated, and interesting ways, – for example, is the critical divide any reading versus none or differences in the amount of reading among those parents who spend some time during the day reading to their children?

Rather than try to dissect the details, instead I'll use their work with the ATUS data to offer several more general observations. First, it should be clear that the title of their paper promises more than it delivers, as theirs most assuredly is not a comprehensive accounting of effects of schooling on parental time in education production. One well-regarded framework for studying parental involvement in children's schooling distinguishes among 6 dimensions. Slide 2 shows the 6
components of Joyce Epsteins' framework, phrased from the school's perspective in wanting to draw parents in. Reading and homework help as examined by DeSimone and Dills would fall into just one of the 6, the Learning At Home component. In fact, it surprises me that DiSimone and Dills left out the ATUS data on "Meetings and School Conferences" under the rationale that children aren't present during those times. This is limiting, and a narrow construction of how parental time can contribute to children's school success. Parents who understand what the school is trying to accomplish and who know the parents of other children at school through participation in the PTA and attendance at parent conferences are in a better position to reinforce the school's learning objectives at home.

One objective of the DiSimone - Dills analysis is to isolate the human capital component of parents' level of schooling. This may be a useful goal (it's the sort of thing economists are wont to do), but whether it can be done convincingly with these data is dubious. Their approach is to isolate human capital influences by controlling for other possibilities, and then to worry about other reasonable candidates that cannot be controlled, in this case parental tastes or preferences that might be confounded with level of schooling, and so be the real impetus to differences in reading time or homework help. But I'm afraid it's all hopelessly confounded, at least when obliged to rely on what are essentially cross-sectional data. They control statistically, for example, for family income and job categories, but surely income and job attainment are themselves influenced by education level as embodied human capital, and so this approach may overcontrol. As a proxy for parental tastes, they undertake a so-called sheepskin test to see whether years of schooling effects are linear throughout the range
or "jump" at years associated with degree completion. This is a weak test, as they themselves acknowledge, but even if they had direct measures of "parental taste," by which they mean something like the value parents place on academic accomplishment, I'm not sure that would help. To be useful for their purpose, a measure of parental values should be exogenous to level of schooling, but if ATUS had asked parents about the importance they place on education, surely their replies would reflect their own school experiences and so be endogenous to parents' attained level of education.

That's one problem, but I don't think it the most interesting one. Beyond human capital, there are other kinds of "capitals" that might be at play, possibilities not acknowledged in the DeSimone – Gills paper. James Coleman, an eminent scholar in the sociology of education, makes the interesting point that parental human capital only benefits children when parents are meaningfully engaged with them—for instance, by spending time with them. Coleman calls this "within-family social capital," and it's what animates or activates the transmission of human capital. Reading time and homework monitoring could be viewed as instances of parents' social capital investment in their children. Under this perspective, an analysis might interact parents' levels of schooling with their time investment in predicting measures of children's school performance. Unfortunately, there are no measures of school performance in ATUS, so that kind of analysis cannot be performed. My point more generally is that DeSimone and Dills' interpretative overlay isn't at all essential to an interest in how parents' levels of schooling, and other parental attributes for that matter, relate to the "education production" of their children.
Having mentioned "social capital," I can't help but bring in the last of the big three, "cultural capital." It is well established that Asian-American parents, whose children tend to do quite well at school, generally rank low on conventional measures of parent involvement. At school, they less often attend meetings or participate in the PTA; at home, they provide less homework help. Partly this has to do with second language issues, but I gather there also are cultural differences in the understanding of parental roles. Asian parents go to great lengths to provide resources and conditions in support of their children's learning, but then expect their children to be self-disciplined and self-reliant in using those resources. When help is provided, it is often by an older sibling. This happens in other language minority households also, and for different reasons, low income parents and single parents also frequently rely on siblings to help siblings. All this makes me wonder how the picture would change were the perspective that of the receiving child rather than of the giving parent. If the idea is to understand the human resources available to children in different family circumstances, I suspect that asking how a child's time is used, and with whom the child interacts in what ways, would be more revealing.

Let me conclude by elaborating on a point made in passing: that DeSimone and Dills' results generally show but small differences. That's true, but it should be added that a small difference one day can cumulate to large differences over years of exposure. I can think of no better illustration than Hart and Risley's remarkable book "Everyday Experience in the Lives of American Children." Hart and Risley studied a small number of families intensively, tape-recording, and then coding, language patterns in the home. This was done monthly over a 2.5 year period, from when the focus
children were roughly 6 months of age to age 36 months. Their sample consists of 6 welfare families, 13 blue collar families and 10 professional families, all with a newborn child that was the focus of their research. My third slide reproduces a chart from their book that extrapolates from birth to age 48 months the differences in word exposure observed across family types during their 2.5 years of observation.

Differences in word exposure are vast and grow over time, exploding to literally millions of words by the end 48 months (roughly 40 million words versus 10 million across social lines). Those are dramatic differences, but Hart and Riesley also document vast qualitative differences in the language environments experienced by children in different family situations-- the language use of professional parents being more complex, more nuanced, more expressive, and more heavily weighted toward positive or encouraging content. So yes, small differences indeed can and do cumulate over time, but the Hart – Riesley study directs attention as well to qualitative differences that *add onto* the quantitative, an issue that cannot be pursued with the ATUS data.

DeSimone and Gills suggest that more highly educated parents might not spend much more time reading with their children than other parents because their reading time is more productive or efficient -- they are able to accomplish the same or more in less time. Data on the more qualitative aspects of reading activities might help inform that conjecture, but the idea itself seems to presume that parents are working toward a fixed, specifiable goal. That strikes me as dubious, as parents’ desires for their children's betterment generally are quite expansive and open-ended. And children play a role in this too of course -- a recent study in the journal *Sociology of Education* by Chin and Phillips introduces the term "child capital" to capture the reality of children's agency.
Some children resist parental overtures; some children don’t need as much help from their parents, especially at older ages.

Research, for example, shows that parental help-giving declines with age, and in several studies there is a negative relationship between grades and homework help and between grades and parent conferences with teachers. Can it possibly be that helping with homework degrades academic performance? Of course not. Any such interpretation reverses cause and effect: students who are struggling at school need more homework help and their parents are more likely to get called in for conferences with the teacher. Reverse causality can be at work in the ATUS data also to the extent that children govern their interactions with parents.

That said, it certainly is useful to know how much time parents spend reading with their children and helping with homework— I love the idea of trying to capture a typical day’s activity at this level of detail. And of course to know how time use varies across levels of parental education and other family conditions also is useful. I enjoyed reading the DeSimone and Dills' paper and found it interesting as food for thought. But it capture just a very small part of parents' role in education production. To go much beyond what they have been able to do likely will require different kinds of data, and probably also a different mode of data gathering.